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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,387	04/19/2006	Tomer Spector	200309501-3	2362

22879 7590 09/17/2008

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EXAMINER	
RODEE, CHRISTOPHER D	
ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
09/17/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/576,387	SPECTOR ET AL.	
	Examiner	Art Unit	
	Christopher RoDee	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-19 and 21-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-19 and 21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/19/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 19 April 2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the publications do not appear to have copies of the documents provided and are not identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication (See 37 CFR 1.98(a)(2)(iii) & (b)(5)). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 is indefinite as presented because it is unclear what dissolving temperature is being referenced. It is also unclear how the adjuvant does not dissolve in the carrier liquid at

the temperature of mixing with the polymer because it is already dissolved in the previous dissolving step. Clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-19 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1,086,753 in view of *Handbook of Imaging Materials* to Diamond, pp. 242-247 & 254-257.

The GB document discloses in Example 1 a process of forming a liquid developer concentrate by dissolving an aluminum tristearate salt (note spec. p. 4, l. 10 & 11 where this compound is disclosed as a charge adjuvant) in odorless mineral spirits (a mixture of paraffin hydrocarbons, a carrier liquid), then adding toner particles, and ball-milling the mixture, which is a mixing and grinding process). Further dilution with additional mineral spirits forms a liquid developer. The toner particles comprise a mixture of dye, wax, and resin. Additionally, the Examiner notes that the amine added in the disclosure on GB page 1 also appears to be a charge director and this component is added to the toner particles. The reference does not specifically disclose that the resin is a thermoplastic resin and does not disclose the addition of a charge director as the last step of the process, although the claims are not so limited. The GB reference also does not specify heating of the aluminum stearate in the liquid carrier. However, the GB reference does states that the additives should be in solution at the temperature of the

apparatus sued for development (p. 1, l. 68-74). The other examples in the GB document are also pertinent to the claims.

Diamond teaches that conventional liquid developers contain resins such as polyethylene, polypropylene, polyestyreme, poly(meth)acrylates, ethylene-(meth)acrylic acids (i.e., Nucrel Resins), and ionomers of ethylene-(meth)acrylic acids (i..e., Surlyn Resins) as effective resins for the toner particles in liquid developers. Nucrel resins are specifically used in the specification (see p. 7, l. 1) as thermoplastic resins (p. 243-4). Diamond also teaches that charge directors are conventionally added to toners to ensure proper charge on the toner particles (p. 244). Diamond also teaches that milling of the toner particles to obtain an effective particle size is conventional in the art and serves to "grind" the particles (p. 246). Diamond also discloses surfactants as effective additives to the liquid composition (p. 255).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a known and conventional resin, such as ethylene-(meth)acrylic acid (i.e., Nucrel) as the resin in the GB document's toner particles because Diamond teaches that the ethylene-(meth)acrylic acids are conventionally used in liquid toners to serve as the vehicle for the colorant and to fix the image to the final receiver, which is conducted in the GB document's examples. The use of a known material for its known function when that function is called for by a reference would have been *prima facie* obvious to the skilled artisan, particularly when that material is conventional in the art as shown by Diamond. It would also have been obvious to add a charge director to the GB document's liquid toner because Diamond teaches that charge directors are conventionally added to liquid developers to ensure proper charge on the toner particles in a liquid developer. It would also have been obvious to heat the mixture of the aluminum stearate and toner particles in order to ensure dissolution of the stearate in the mineral spirits because heating of a liquid to enhance solubility of a solid component is

ubiquitous and common knowledge in the chemical arts and would have been an obvious expedient to the artisan the ensure the dissolved state of the salt as desired by the reference. The artisan would expect that heating would soften the resin, particularly because the toner resins are designed to soften or melt during the fixing process. The order of the steps as disclosed by the GB and Diamond references would have been obvious to the artisan to vary in order to produce an effective liquid developer.

Double Patenting

Claim 26 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 25. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on Monday to Thursday from 5:30 to 4:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher RoDee/
Primary Examiner
Art Unit 1795

15 September 2008